# 2CS404

# Programming For Scientific Computing

# Innovative Assignment

## Group Details:

- 19BCE228
- 19BCE236
- 19BCE244

## Project:

- Citizen Data Visualization Application

➢ Features:

- Ploting Pie Charts
- Ploting Histograms
- Ploting Line Graphs
- Graphical User Interface

➢ input:

- Data file containing information of Citizens

Format:

Citizen id , first name, last name, age, gender, state , city, Weight, Height

## Requirements:

Packages:

- PyQt5
- matplotlib

- İnstall the PyQt5 package to your python environment.

  We have used PyQt5 package for developing the GUI for this application

- Run the following command in your terminal:
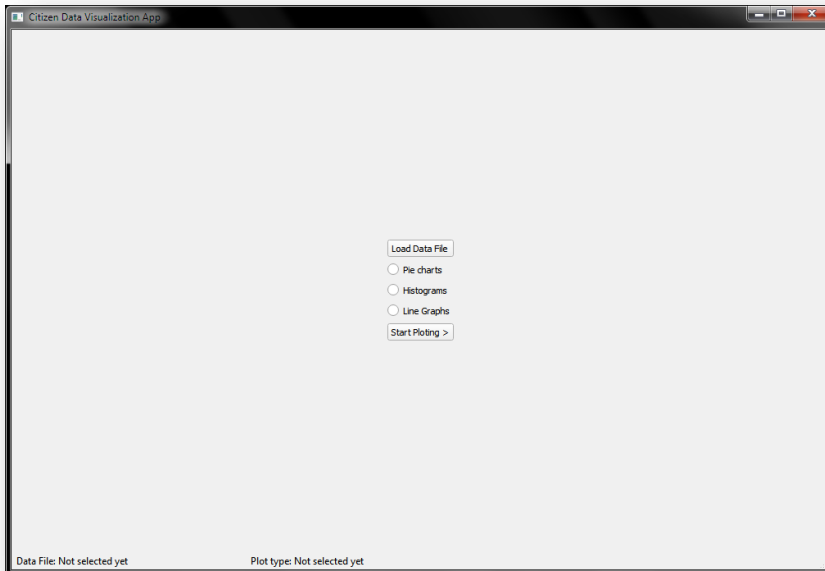
  ```
  pip install PyQt5
  ```

  or

  ```
  conda install PyQt5
  ```
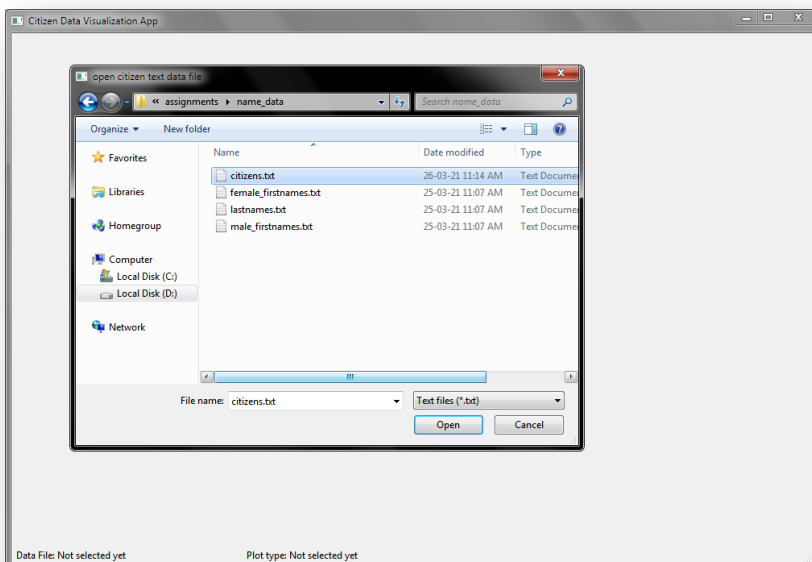
## How to run:

- After installing all the required packages you need to run the python file (citizen_data_vis.py):
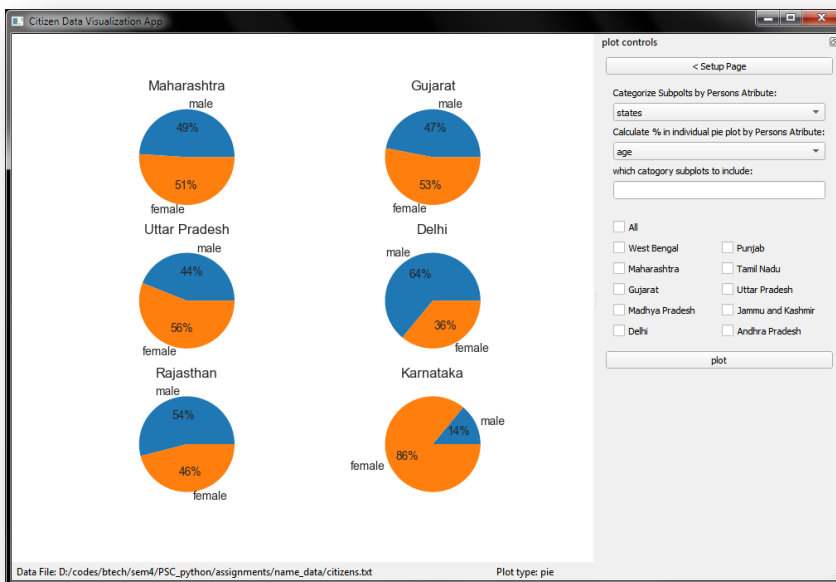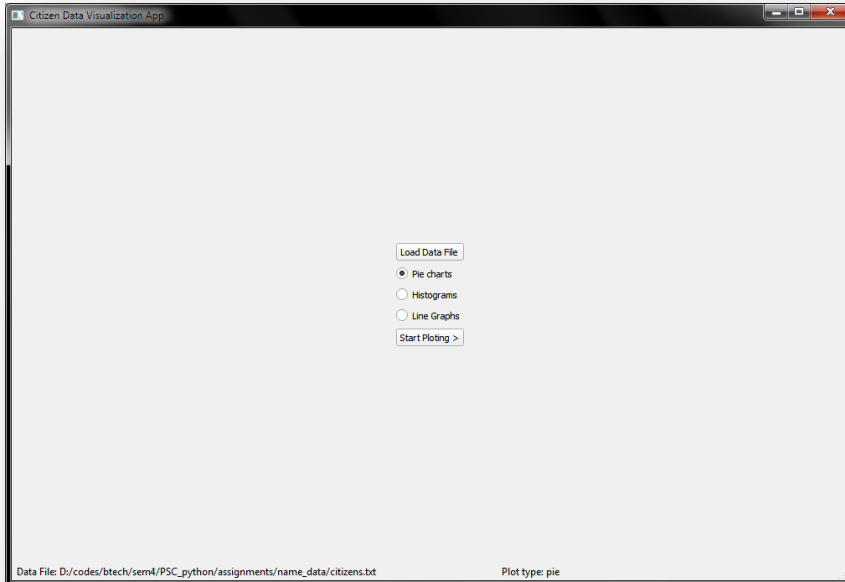
- ```
  python citizen_data_vis.py
  ```

- After that a new window shoud appear named "Citizen Data Visualization App"



- Click on "Load Data File" button and select the sample data file (citizens.txt)

- Now select the type of plot and press "start ploting"
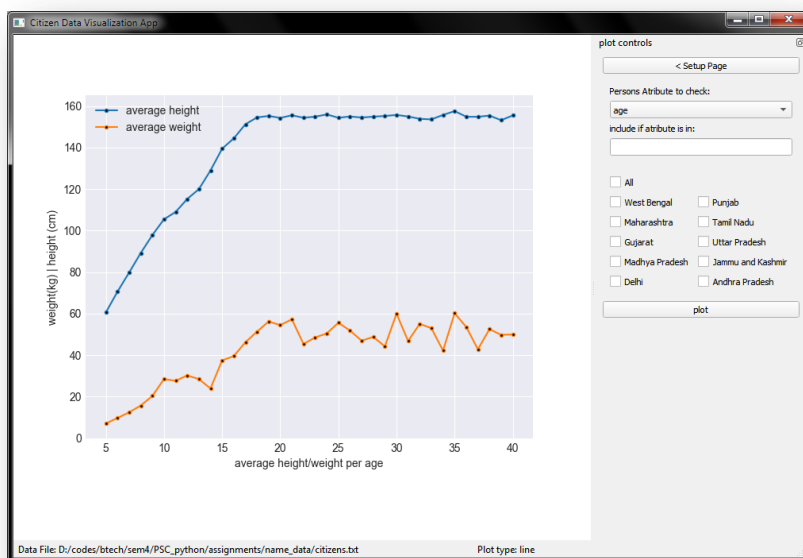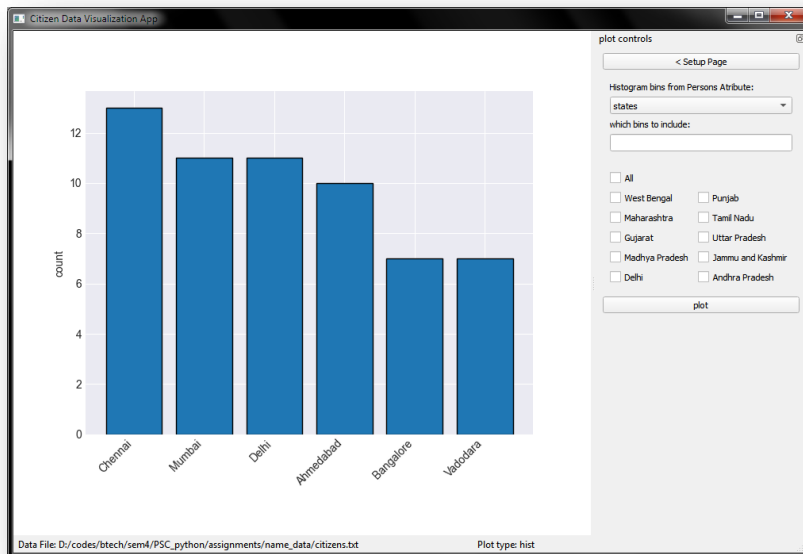
- You will get to see sample plots by default according to the plot type you selected.

  You can also change the plot type by clicking "setup page" button on the control panel on the right side of the window.

- You can use control panel on the right to select different options.

- Upon clicking the "plot" button on control panel a new figure will show up on the left according to the options you selected.

- Different figure generated by selecting different control options: